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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,213	08/18/2003	Fang-Chen Cheng	CHENG 7-14 2100.001400	4026

46290 7590 07/30/2007

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EXAMINER	
NGUYEN, TUAN HOANG	
ART UNIT	**PAPER NUMBER**
2618	
MAIL DATE	**DELIVERY MODE**
07/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/643,213	CHENG ET AL.	
	Examiner	Art Unit	
	Tuan H. Nguyen	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 06/21/2006 with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 9-10 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dent (US PUB. 2003/0036378) in view of Katz (U.S PAT. 6,321,082).

Consider claim 1, Dent teaches a method, comprising: determining at least one relative delay between at least two user equipment (fig. 2 page 2 [0023]).

Dent differs from the claimed invention in not specifically teaching transmitting a signal identifying a time at which information is permitted to be transmitted based on the relative delay.

However, Katz teaches transmitting a signal identifying a time at which information is permitted to be transmitted based on the relative delay (col. 9 line 46 through col. 10 line 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Dent for transmitting a signal identifying a time at which information is permitted to be transmitted based on the relative delay, as per teaching of Katz, in order to provide a method of directional radio communication in a mobile communication network between a first station and a second mobile station.

Consider claims 2, 9, and 16, Dent teaches a method for controlling a flow of information, comprising: receiving a signal requesting to transmit information (page2 [0016]); determining at least one relative delay between at least two user equipment (fig. 2 page 2 [0023]).

Dent differs from the claimed invention in not specifically teaching determining a time at which the information is permitted to be transmitted based on the relative delay; and transmitting a signal identifying the time at which information is permitted to be transmitted.

However, Katz teaches determining a time at which the information is permitted to be transmitted based on the relative delay (col. 9 line 46 through col. 10 line 2); and transmitting a signal identifying the time at which information is permitted to be transmitted (col. 9 line 46 through col. 10 line 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Dent for determining a time at which the information is permitted to be transmitted based on the relative delay; and transmitting a signal identifying the time at which information is permitted to be transmitted, as per teaching of Katz, in order to provide a method of directional radio communication in a mobile communication network between a first station and a second mobile station.

Consider claims 3 and 10, Katz further teaches transmitting a synchronizing signal to the user, and wherein transmitting a signal identifying the time at which information is to be transmitted further comprises transmitting a signal identifying the time as a function of the synchronizing signal at which information is permitted to be transmitted (col. 9 line 46 through col. 10 line 2).

Consider claim 17, Dent teaches a method for controlling the flow of information between a user and a base station, comprising: transmitting a signal from the user requesting permission from the base station to transmit information (page2 [0016]); determining at least one relative delay between the user and at least one other user (fig. 2 page 2 [0023]).

Dent differs from the claimed invention in not specifically teaching determining a time at which the user is to transmit the information to the base station, wherein the determined time is a function of the relative delay; and transmitting a signal to the user

identifying the time at which information is permitted to be transmitted; and transmitting the information from the user to the base station at the identified time.

However, Katz teaches determining a time at which the user is to transmit the information to the base station, wherein the determined time is a function of the relative delay (col. 9 line 46 through col. 10 line 2); and transmitting a signal to the user identifying the time at which information is permitted to be transmitted (col. 9 line 46 through col. 10 line 2); and transmitting the information from the user to the base station at the identified time (col. 9 line 46 through col. 10 line 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Dent for determining a time at which the user is to transmit the information to the base station, wherein the determined time is a function of the relative delay; and transmitting a signal to the user identifying the time at which information is permitted to be transmitted; and transmitting the information from the user to the base station at the identified time, as per teaching of Katz, in order to provide a method of directional radio communication in a mobile communication network between a first station and a second mobile station.

Consider claim 18, Dent further teaches receiving the information from the user at a first preselected time (page 1 [0008]); comparing the first preselected time with the identified time to determine the relative delay between the user and at least one other user (fig. 2 page 2 [0018] and [0023]).

Consider claim 19, Dent teaches a method for controlling the flow of information between a user and a base station, comprising: transmitting a signal from the user requesting permission from the base station to transmit information (page2 [0016]); and the time being determined based on a relative delay between the user and at least one other user (fig. 2 page 2 [0023]).

Dent differs from the claimed invention in not specifically teaching receiving a synchronizing signal from the base station; receiving a signal from the base station identifying a time relative to the synchronizing signal at which information is to be transmitted; and transmitting the information from the user to the base station at the identified time.

However, Katz teaches receiving a synchronizing signal from the base station (col. 9 line 46 through col. 10 line 2); receiving a signal from the base station identifying a time relative to the synchronizing signal at which information is to be transmitted (col. 9 line 46 through col. 10 line 2); and transmitting the information from the user to the base station at the identified time (col. 9 line 46 through col. 10 line 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Dent for receiving a synchronizing signal from the base station; receiving a signal from the base station identifying a time relative to the synchronizing signal at which information is to be transmitted; and transmitting the information from the user to the base station at the identified time, as per teaching of Katz, in order to provide a method of directional radio communication in a mobile communication network between a first station and a second mobile station.

4. Claims 4, 8, 11-12 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dent (US PUB. 2003/0036378) in view of Katz (U.S PAT. 6,321,082).

Consider claims 4 and 11, Dent and Katz, in combination, fails to teaches transmitting the signal identifying the time as a function of the synchronizing signal at which information is permitted to be transmitted further comprises transmitting over a shared channel the signal identifying the time as a function of the synchronizing signal at which information is permitted to be transmitted.

However, Leatherbury teaches transmitting the signal identifying the time as a function of the synchronizing signal at which information is permitted to be transmitted further comprises transmitting over a shared channel the signal identifying the time as a function of the synchronizing signal at which information is permitted to be transmitted (page 1 [0008] and page 2 [0011]).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Leatherbury into view of Dent and Katz, in order for distributing information via existing and future communication networks that meets the increasing demand for broadband content.

Consider claim 8, Leatherbury further teaches receiving the information at a first preselected time (page 2 [0016]); comparing the first preselected time with the identified

time to determine the delay associated with the request to transmit information (page 3 [0018]).

Consider claim 12, Leatherbury further teaches a plurality of users, and wherein: transmitting the synchronizing signal further comprises transmitting the synchronizing signal over a shared channel to each of the plurality of users (page 1 [0008] and page 2 [0011]); and transmitting the signal identifying the time as a function of the synchronizing signal at which information is to be transmitted further comprises transmitting over the shared channel to the plurality of users a signal identifying a unique time, as a function of the synchronizing signal, at which information is to be transmitted (page 1 [0008] and page 2 [0011]).

Consider claim 20, Leatherbury further teaches receiving a signal from the base station identifying the time at which information is to be transmitted further comprises receiving a signal from the base station identifying a substantially unique time at which information is to be transmitted (page 11 [0072]).

Consider claim 21, Leatherbury further teaches receiving a signal from the base station identifying the time at which information is to be transmitted further comprises receiving a signal from the base station identifying a substantially unique frame associated with the synchronizing signal during which information is to be transmitted

(page 11 [0074]).

Consider claim 22, Leatherbury further teaches receiving a synchronizing signal from the base station further comprises receiving a synchronizing signal from the base station over a shared channel (page 1 [0008] and page 2 [0011]).

5. Claims 5-7 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dent in view of Katz, and further in view of Dutta (US PAT. 6,587,443).

Consider claims 5 and 13, Dent and Katz, in combination, fails to teaches transmitting a signal identifying the time at which information is to be transmitted further comprises transmitting a signal identifying a frame in which information is to be transmitted.

However, Dutta teaches transmitting a signal identifying the time at which information is to be transmitted further comprises transmitting a signal identifying a frame in which information is to be transmitted (col. 14 lines 32-60).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Dutta into view of Dent and Katz, in order to distribute signalling and messaging activities over all return channels of a channel group, by varying forward to return channel data rate ratios, and by reducing message transport delays with respect to prior art communication systems, based on message traffic over such channel group.

Consider claims 6 and 14, Dutta further teaches associating a delay with the request to transmit information further comprises determining a propagation delay (col. 12 lines 7-19).

Consider claims 7 and 15, Dutta further teaches associating a delay with the request to transmit information further comprises determining a processing delay (Fig. 7 col. 22 lines 32-58).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any response to this action should be mailed to:

Mail Stop_____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571)272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571)272-7882882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen
Examiner
Art Unit 2643

T.N

NAY MAUNG
SUPERVISORY PATENT EXAMINER